

REMARKS

The proposed corrections to the specification do not add any new matter and simply address grammatical issues.

The newly drafted Claims 18-23 are within the scope of the original invention and do not add any new matter.

If the Examiner believes a telephone interview will help further the prosecution of this case, he is respectfully requested to contact the undersigned attorney at the listed telephone number.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on January 23, 2002.

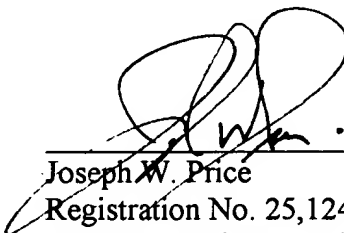
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Respectfully submitted,

PRICE AND GESS



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The second and third paragraphs on page 1 have been amended as follows:

In general, arms and legs for an elastic doll[, when they] are constructed so as to be [kept] bent, to thereby permit the doll to make a desired pose, so that it may exhibit increased reality. For this purpose, it has been conventionally considered that a core is preferably incorporated or embedded in the arms and legs. Actually, an arm or leg member which has a core incorporated or embedded therein is known in the art.

However, in such an arm having a core embedded or incorporated therein, as shown in Fig. 17, a core 40 is embedded in a [molding] molded synthetic resin material 41 for an arm as if it floats in the molding material, resulting it in failing to be integrated with the molding material 41. Thus, even when it is attempted to return the arm to an original straight pose thereof after it is bent in one direction, the core 40 [selfishly] inherently carries out torsional rotation in the arm, to thereby cause the arm to make a pose of being bent in an opposite direction, resulting in the arm being hard to make a desired pose. Also, the conventional core-embedded arm has another problem of causing the core 40 to be exposed at a distal end 40a thereof from a surface of the arm.

The second paragraph on page 2 has been amended as follows:

Conventionally, techniques of stationarily setting the core in the molding space while keeping it floating in the space are limited to a means of fixing both ends of the core on edges of the molding space or that of securely supporting an intermediate portion of the core which is arranged in the molding space by means of a support member such as

a fine wire or the like. However, the former means requires to cut the core at each end of the molded article, resulting in a mark made by the cutting being left on the molded article, as disclosed in Japanese Patent Publication No. 16875/1991. Thus, although the means may be employed in legs of a doll wherein there is a portion which is out of sight such as a sole of each of the feet because the portion permits the mark to be ignored, it cannot be applied to arms because it is not desired to leave the marks on fingers. The latter means causes a mark formed by drawing the support member out of the molded article after the molding to be left in the form of a hole on a surface of the molded article although the hole is small, so that the molded article is deteriorated in appearance.

The third paragraph on page 10 has been amended as follows:

The split mold members 2 and 3 have mating surfaces defined at a position thereof between the molding spaces 4a and 4b, respectively. The mating surfaces are each formed with a recess 5a. The recesses 5a cooperate with each other to act as a fixing [means] unit for stationarily holding one end 10a of a metal core 10 projected from the molding spaces 4a and 4b therein. For this purpose, the recesses 5a are formed to have a size which permits the core 10 to be closely fitted therein. Thus, when the mold member 2 is jointed to the mold member 3, the one end 10a of the core 10 which is positioned on the mold member 2 is fitted in the recesses 5a of the mold members 2 and 3 while being pressedly held therebetween.

The last paragraph on page 11 continuing on page 12 and the second paragraph on page 12 has been amended as follows:

The spacer 13 is made of a synthetic resin material which is compatible with the molding material injected into the molding spaces 4a and 4b and has a melting point

equal to or below a molding temperature of the molding material injected into the molding spaces 4a and 4b. For example, in the illustrated embodiment, the molding material injected into the molding spaces 4a and 4b may be a thermoplastic elastomer which has a melting point of between 100°C and 170°C, whereas the spacer 13 may be made of polyethylene which has a melting point between 100°C and 130°C. A temperature difference between a molding temperature of the molding material and a melting point of the spacer may be between 0°C and 100°C. Alternatively, the spacer 13 may be made of soft or flexible synthetic resin such as an elastomer, a material designated by Everflex (trademark), PVC or the like which is of the same type as the molding material. Of course, a variety of elastomers such as an olefin elastomer, an urethane elastomer and the like may each be used as the molding material. A different molding material and a different material for the spacer may be used. [It is of] Of course [that] this [leads] may lead to a variation in the molding temperature and melting point.

Then, when the mold member 3 is [superposed] superimposed on the mold member 2 alignedly or while being aligned with each other, the one end 10a of the core 10 is closely fitted in the recesses 5a of the mold members 2 and 3, so that the core 10 may be stationarily held at a center in the molding spaces 4a and 4b. Also, the other end 10b of the core 10 is likewise held at a center in the molding spaces 4a and 4b because the projections 15 are abutted at a distal end thereof against an inner surface of the molding spaces 4a and 4b (see Fig. 3).

The last paragraph on page 13 has been amended as follows:

Also, the molded article 17A thus obtained permits the core 10 to extend at the one end 10a thereof to a shoulder of the arm and to be integrated at the other 10b thereof

with the spacer 13 by melting; so that torsional rotation of the core 10 with respect to the spacer 13 may be substantially prevented even when the molded article 17A is repeatedly bent at an elbow joint. In addition, the detachment-preventing section or sections 18 effectively prevent the core 10 from being detached from the spacer 13, not to be externally exposed, resulting [it] in ensuring that a user safely enjoys the doll. Further, the detachment-preventing section or sections 18 permit the core 10 and spacer 13 to be integrated with each other, to thereby more effectively prevent torsional rotation of the core 10 with respect to the spacer 13, so that the arm 17A may be readily formed into any desired configuration. When the detachment-preventing section or sections 18 are constructed so as to act also as the rotation-preventing means, integration between the core 10 and spacer 13 may be further enhanced.

The last paragraph on page 16 has been amended as follows:

After the molding material is charged into the molding spaces, the mold members 2 and 3 are separated from each other and the support rods 24 [is] are drawn out of the molding spaces 4, so that molded articles (arms) 17B may be taken out of the mold members 2 and 3. The core 10 is removed at an exposed portion 10A thereof by cutting. The molded article 17B is formed at an engagement groove 25 with a hole 26 by drawing out the support rod 24 from the molded article. The engagement groove 25 is adapted to be engagedly fitted in a hole (not shown) on a side of a trunk of a doll together with an expanded projection 27. This keeps the hole 26 from being externally exposed when the molded arm is attached to the trunk, to thereby prevent a deterioration in appearance of the arms and therefore the doll.

The second paragraph on page 19 has been amended as follows:

Mounting of the thus-constructed spacer 13 on each of the distal ends of the core 10 is carried out by inserting the bent section 28 formed at the distal end of the core 10 into the groove 29 from a front side of the groove 29 and then rotating the spacer 13 to engagedly fit a distal end of the bent section 28 in the engagement hole 33 of the front lower wall 30 and to abut a portion of the core 10 above the bent section 28 against the rear upper wall 31 beyond the projections 32.

The last paragraph on page 20 has been amended as follows:

The fixed mold member 2 and movable mold member 3 have mating surfaces which are formed thereon with grooves 5a and 5b of a substantially V-shape between the molding spaces 4a and between the molding spaces 4b, respectively. The grooves 5a and 5b each act as a fixing [means] unit for fixing a fixed portion 10A of a central region of a metal core 10 projected from the molding spaces 4a, 4a and 4b, 4b. For this purpose, the grooves 5a and 5b are each formed to have a size which permits the core 10 to be closely or tightly fitted therein; so that when the movable mold member 3 is joined to the fixed mold member 2, the core 10 positioned on the fixed mold member 2 may be received in the grooves 5a and 5b, to thereby be firmly held between the fixed mold member 2 and the movable mold member 3.

The second, third and fourth paragraphs on page 23 have been amended as follows:

The molded arms 17C each have the core 10 necessarily kept embedded therein while being arranged at a central position therein, resulting in production of [a defective] any defects in which the core is shifted or deviated from the central position in the molded article being minimized, so that yields in the manufacturing may be improved.

The molded arms each have the core 10 embedded therein, to thereby be kept bent once it is bent, resulting in it exhibiting good [reality] reliability and ensuring safety during handling thereof because the core is fixed at a central position therein.

The fixed portion 10A of the core 10 is merely required to be supported [at] in at least three points on the mating surfaces of the fixed mold member 2 and movable mold member 3. Thus, the grooves 5a and 5b are each merely required to be so formed that portions S and T thereof positioned in proximity to the molding spaces 4a, 4b and a central bent portion U thereof may be tightly contacted with the core 10. The remaining part of each of the grooves 5a and 5b may be formed so as to permit the core 10 to be loosely fitted therein.

In relation to the above, the fixing [means] unit is not limited to a structure in the form of a groove like the grooves 5a and 5b. For example, the fixing [means] unit may be constructed in such a manner that the mating surface of each of the fixed mold member 2 and movable mold member 3 is formed with recesses, in which projections (not shown) for supporting the core at three points are arranged.

IN THE CLAIMS

The claims have been amended as follows:

1 3. (Amended) An arm for an elastic doll as defined in claim 1 [or 2], wherein
2 said core is formed thereon with a detachment-preventing section for preventing
3 detachment of said spacer therefrom.

1 9. (Amended) A method for molding an arm or arms for an elastic doll as
2 defined in claim 5 [or 6], wherein the shoulder of the arm is provided with an
3 engagement groove adapted to be engaged with a trunk of a doll;

4 further comprising the step of arranging a support rod at a site in said
5 molding space corresponding to said engagement groove, said support rod functioning to
6 support said core against an injection pressure of a molding material during molding of
7 the arm.

1 10. (Amended) A method for molding arms for an elastic doll as defined in
2 claim 6 [or 7], further comprising the steps of:

3 separating said mold members from each other after molding of the arms;
4 and

5 removing a portion of the core exposed from the shoulder of each of the
6 arms.

Claims 18-23 have been added.

1 18. (New) An arm for an elastic doll as defined in claim 2, wherein said core is
2 formed thereon with a detachment-preventing section for preventing detachment of said
3 spacer therefrom.

1 19. (New) A method for molding an arm or arms for an elastic doll as defined in
2 claim 6, wherein the shoulder of the arm is provided with an engagement groove adapted
3 to be engaged with a trunk of a doll;

4 further comprising the step of arranging a support rod at a site in said
5 molding space corresponding to said engagement groove, said support rod functioning to
6 support said core against an injection pressure of a molding material during molding of
7 the arm.

1 20. (New) A method for molding arms for an elastic doll as defined in claim 7,
2 further comprising the steps of:
3 separating said mold members from each other after molding of the arms;
4 and
5 removing a portion of the core exposed from the shoulder of each of the
6 arms.

1 21. (New) A molded appendage for a doll, comprising:
2 an elongated core member that is bendable;
3 a spacer member connected to the core member and extending outward
4 therefrom; and
5 an outer housing of a moldable resin material having an exterior surface to
6 simulate the desired configuration of the appendage, the outer housing substantially
7 encapsulating the core member and spacer member, the spacer member being integrated
8 into the resin material of the outer housing.

1 22. (New) The molded appendage of claim 21 wherein the spacer member is a
2 resin material having a melting point equal to or below a melting point of the outer
3 housing.

1 23. (New) The molded appendage of claim 22 wherein the spacer member is
2 appended at one end of the elongated core member and includes a plurality of outward
3 projections.